Colorectal Cancer:

The Importance of Prevention and Early Detection

AT-A-GLANCE 2000

"We now have clearer insight into the natural history of colorectal cancer, better understanding of its biologic features, and clinical skills with which to intervene and make a difference for many people. Colorectal cancer screening has come of age."

Sidney J. Winawer, MD, Memorial Sloan-Kettering Cancer Center, New York
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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

Colorectal Cancer

How Common Is Colorectal Cancer?

Colorectal cancer—or cancer of the colon or rectum—is the second leading cause of cancer-related death in the United States. The American Cancer Society estimates that 56,300 Americans will die of colorectal cancer in 2000.

When skin cancer is excluded, colorectal cancer is the third most commonly diagnosed cancer for both men and women in the United States. Approximately 130,200 new cases will be diagnosed during 2000. For men, colorectal cancer follows prostate and lung cancers in frequency; for women, it follows breast and lung cancers.

Who Is at Risk?

The risk of developing colorectal cancer generally increases with advancing age. African Americans are more likely than whites to be diagnosed with this disease at a more advanced stage and are more likely to die of it. Other major risk factors include having inflammatory bowel disease, a family history of colorectal cancer or colorectal polyps, and certain hereditary syndromes. Additional conditions contributing to increased risk for colorectal cancer include a personal history of colorectal cancer or polyps or of ovarian, endometrial, or breast cancer. Lack of regular physical activity can contribute to increasing one's risk; low fruit and vegetable intake, a low-fiber and high-fat diet, obesity, and alcohol consumption are other possible risk factors.

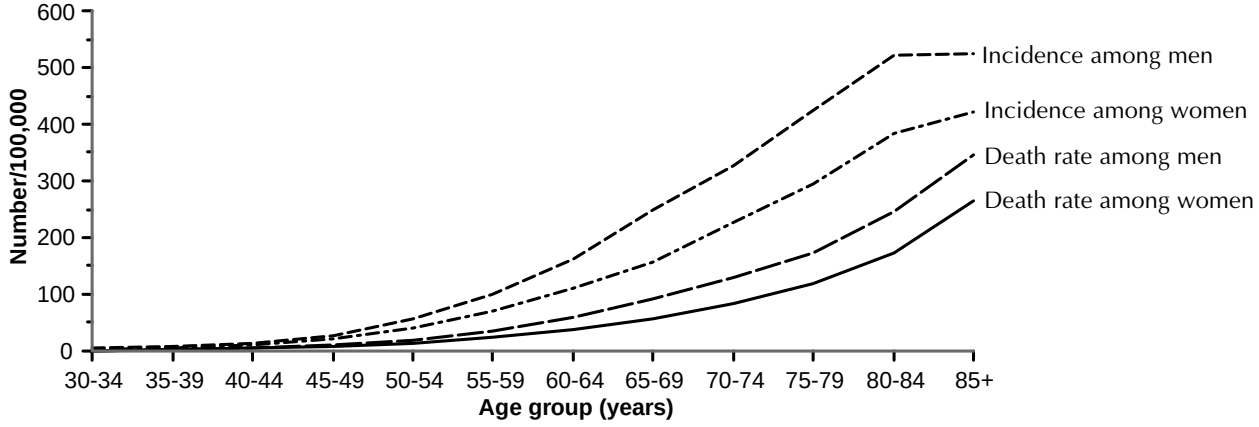
Prevention and Early Detection—Keys to Reducing Deaths

Reducing the number of deaths from colorectal cancer chiefly depends on detecting and removing precancerous colorectal polyps, as well as detecting and treating the cancer in its early stages. Colorectal cancer can actually be prevented by removing precancerous polyps, which may be present in the colon for years before invasive cancer develops.

When colorectal cancer is diagnosed at a localized stage, death rates are low: only about 10% of patients diagnosed at this stage will die within 5 years. Once the disease has progressed to a regional stage, about 35% of patients will die within 5 years. When the disease is diagnosed at an advanced stage (has spread to distant sites), death rates are high: about 92% of patients will die within 5 years. For African Americans, 5-year survival rates are lower than those for whites, and a smaller proportion of cases are diagnosed at an early stage.

Despite the availability of effective screening tests, colorectal cancer screening is underused. Studies show that only 37% of colorectal cancers are diagnosed at a localized stage. These findings underscore the need to increase awareness of the effectiveness of screening and to promote the widespread use of colorectal cancer screening at regular intervals.

Cancers of the Colon and Rectum: Incidence and Death Rates, by Sex, United States, 1990–1996*



*Average annual age-specific data; age-adjusted to 1970 U.S. population.
Source: National Cancer Institute, *SEER Cancer Statistics Review, 1973–1996.*

Types of Screening

Two currently available tests have been shown to reduce deaths from colorectal cancer:

- **The fecal occult blood test** (FOBT) is a chemical test for blood in a stool sample. A study conducted in the United States showed a 33% reduction in colorectal cancer deaths among the participants who were in the group offered annual screening by FOBT.
- **Flexible sigmoidoscopy** can detect about 65%–75% of polyps and 40%–65% of colorectal cancers. In this screening procedure, a hollow, lighted tube is used to visually inspect the wall of the rectum and part of the colon.

Two other tests for colorectal cancer—**colonoscopy** and **double-contrast barium enema** (DCBE)—are commonly used in clinical practice, although no direct evidence as yet supports their efficacy in reducing deaths from colorectal cancer. These two tests are used to examine the interior wall of the entire colon and can be used as screening tests or as follow-up diagnostic tools when the results of another screening test are positive. Another procedure, digital rectal examination, can inspect only a limited area and is therefore not recommended as an acceptable screening method.

Guidelines for Screening

Underuse of Screening

Currently, screening for colorectal cancer lags far behind screening for other cancers, perhaps because the effectiveness of colorectal cancer screening has only recently been documented. Findings from CDC's state-based Behavioral Risk Factor Surveillance System indicated that in 1997, only 41% of adults aged 50 years or older had ever had a sigmoidoscopy or proctoscopy (an earlier and now less frequently used procedure) for screening or diagnostic purposes, and only 29% of respondents reported having had one within the past 5 years. Of the survey respondents, 39% of adults aged 50 years or older reported ever having an FOBT using a home kit, and only 19% reported having had this test in the preceding year.

Current Guidelines

Acting on recent evidence that screening, along with appropriate follow-up and treatment, reduces deaths from colorectal cancer, several scientific organizations recommend regular screening of all average-risk adults aged 50 years or older. Recommended screening procedures include the following:

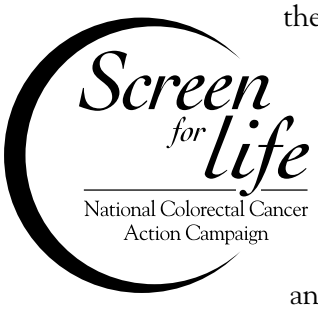
- Annual FOBT.
- Flexible sigmoidoscopy every 5 years.
- Total colon examination by colonoscopy every 10 years or by DCBE every 5–10 years.

Those at higher risk should be offered more intensive surveillance. The U.S. Preventive Services Task Force, the American Cancer Society, and the Interdisciplinary Task Force (originally convened by the federal Agency for Health Care Policy and Research and supported by five major gastroenterological societies) have developed detailed guidelines related to colorectal cancer screening. These guidelines all emphasize the key health benefit of colorectal cancer screening—finding and removing precancerous polyps and cancer, thus either preventing the development of cancer or detecting the disease at an early, more treatable stage.

CDC Program Activities

With approximately $2.9 million available in fiscal year 2000 to target colorectal cancer, CDC is promoting colorectal cancer screening nationwide by educating health care providers and the public about the benefits of screening, the availability of screening procedures, and current screening guidelines. CDC also supports investigations to determine clinical and consumer barriers to screening. For example,

- The National Colorectal Cancer Roundtable, established by CDC and the American Cancer Society, is strengthening the network of public and private organizations promoting colorectal cancer screening. Partners include state health departments, professional organizations (such as the American Digestive Health Foundation and the Digestive Disease National Coalition), medical societies, federal agencies, consumers, cancer survivors, managed care organizations, private industry, health educators, and the medical media. The Roundtable participated in a special White House event featuring First Lady Hillary Rodham Clinton, NBC *Today* show co-anchor Katie Couric, and *Good Housekeeping* Editor-in-Chief Ellen Levine to promote colon cancer prevention and early detection.
- In March 1999, U.S. Surgeon General David Satcher announced the launch of Screen for Life—the National Colorectal Cancer Action Campaign, a multiagency collaboration involving CDC, the Health Care Financing Administration, and the National Cancer Institute. This national education campaign uses television, radio, Internet, and print materials to promote screening and early detection for all Americans aged 50 years or older and urges those at higher risk to talk to their doctors about colorectal cancer screening.



- CDC has provided national leadership in bringing together state health department personnel and other key partners to identify opportunities and develop strategies for colorectal cancer initiatives. During 1999, CDC funded five states and one tribal organization to begin implementing comprehensive cancer control programs, which include efforts targeting colorectal cancer. Funding is being used to establish broad-based coalitions, coordinate surveillance systems, and develop and disseminate public education programs.

In addition, CDC

- Supports the Agency for Health Care Policy and Research, the Harvard School of Public Health, and the RAND Corporation in developing and evaluating a colorectal cancer screening measure for potential inclusion in the Health Plan Employer Data and Information Set (HEDIS), a system of quality monitoring for national managed care plans.
- Supports studies with the Kaiser Permanente Medical Care Program of Northern California and the Imperial Cancer Research Fund in Great Britain to determine factors associated with patients' interest and participation in sigmoidoscopy screening.
- Works with the Alliance of Community Health Plans (ACHP) to validate self-reported history of colorectal cancer screening by comparing responses from a telephone survey to information recorded on medical charts for a sample of adults aged 50 years or older.
- Works with the ACHP and the Kaiser Permanente Medical Care Program of Northern California to study potential complications associated with sigmoidoscopy.
- Provides support to the Center for Health Promotion and Disease Prevention at the University of North Carolina at Chapel Hill to develop standards for performing and reporting results of sigmoidoscopies.
- Works with the National Cancer Institute to conduct a national survey of primary care physicians to determine their knowledge and attitudes about colorectal cancer screening and their perceptions of screening barriers.

For more information or additional copies of this document, please contact the Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Mail Stop K–64, 4770 Buford Highway NE, Atlanta, GA 30341–3717, (770) 488-4751. Voice Information System: 1 (888) 842-6355 Fax: (770) 488-4760 cancerinfo@cdc.gov http://www.cdc.gov/cancer